

# Helpful Hints for Motorists

## Simple Way to Rebush Kingpin, and Seven Other Useful Aids

**I**F THE kingpin bolt is allowed to get loose and the automobile is run for any great length of time with the bolt in that condition, the result is usually a worn lower bearing that makes refitting practically impossible. The only remedy is to drill out and rebush the hole. Figure 1 shows a novel way to use the weight of the car to feed the drill into the hole. The drill bit is fastened to an ordinary brace and the jack gradually is lowered. An even smoother feed can be obtained with one of the screw types of automobile jacks.

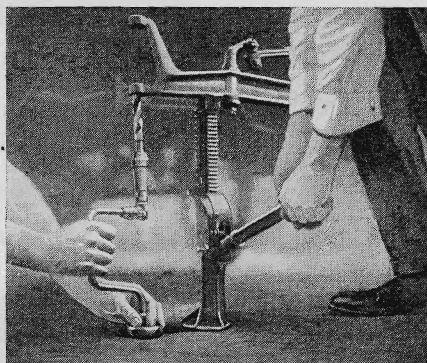


Fig. 1. Using weight of the car, controlled by a jack, to feed drill into hole for kingpin bolt

**P**ART of the nuisance of washing the car is in coiling and uncoiling the hose. Again, the valve is usually some distance away from the place where the car is washed. Short of purchasing a swivel arrangement for an overhead supply, the simplest solution of the problem is to run a pipe up to the ceiling, put in a valve at a convenient point, and arrange a weight and cord to pull the hose out of the way when it is not in use. The arrangement is shown in Fig. 2. A 12-inch length of strap iron bolted to the handle of the valve and fitted with two cords will serve to turn the water on and off.

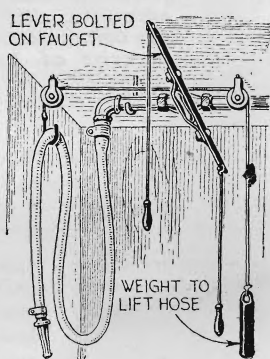


Fig. 2. Ingenious way of installing hose in garage for washing the motor car

**I**N MANY sections of the country the house water supply is not good for use in the radiator of an automobile because of a high mineral content that will be deposited, as the water is evaporated, in the radiator and the cylinder jacket. A scaly deposit of this type will interfere seriously with the proper cooling of the motor.

Rainwater is free from mineral matter and a barrel arranged as shown in Fig. 3 will insure an adequate supply. Rainwater can be used in storage batteries in place of the distilled water ordinarily sold for this purpose. Be sure to punch a small hole in the can that is attached to the pipe under the drain spout, so that, when it stops raining, the water in the can will run off and not form a breeding spot for mosquitos.

If you expect to use rainwater for storage batteries, construct the collector out of sheet lead and lead pipe and use lead pipe as a connection between the barrel and the hose.

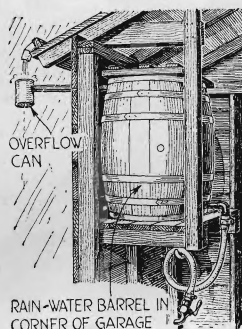


Fig. 3. How to install a barrel in garage to supply rainwater for the radiator

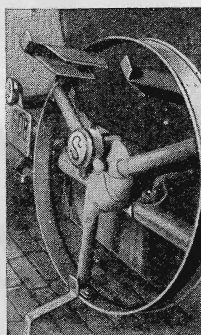


Fig. 4. Three pieces of sheet metal bent to form lugs to support conveniently the extra tire

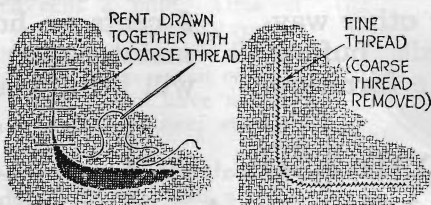
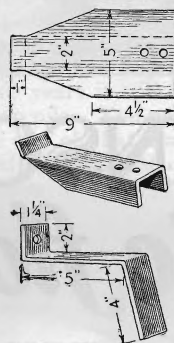


Fig. 5. Torn edges of upholstery can be pulled together with coarse thread, then sewed

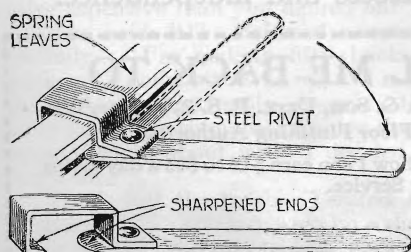


Fig. 6. Simple spring leaf spreader made of two pieces of spring leaves riveted together

**O**N LONG trips it is a great advantage to carry two spare tires. If the tires on your car are no longer new, you may reasonably expect several blowouts. Two blowouts may come in quick succession

and then the extra spare certainly will come in handy.

As shown in Fig. 4, three pieces of sheet metal are bent to form three lugs that will support the extra tire and rim. The two upper ones are riveted or bolted in place, while the lower one is fastened with a bolt so that it can be loosened up in order to allow the extra spare tire to be hooked over the two top lugs. Make sure, of course, that the framework of the tire carrier is strong enough to carry the extra load.

**T**HE material used to upholster closed types of automobiles usually is stretched pretty tightly. When it is accidentally torn, the rent gaps open so much that it is difficult to sew up the tear in the ordinary way. A solution of the problem is to pull the torn edges together with coarse thread, then sew up the break with fine thread. Figure 5 shows you how to do this.

**A**LITTLE grease or heavy oil between the leaves of the springs always will make the car ride easier, especially if it is fitted with rebound snubbers or shock absorbers. Figure 6 shows how to make a simple spring leaf spreader out of two pieces of spring leaves. The spring leaves first should be annealed, then forged and filed and drilled for the rivet. After that, retemper them and rivet together.

**I**F YOU use your car in severe winter weather, you know that every little draft adds to your discomfort. Most of the cold air that makes winter driving uncomfortable comes in around the front curtains, where they are buttoned to the windshield.

A simple remedy for this trouble, which will help materially to keep the car warm, is to make a couple of shields of sheet aluminum, as shown in Fig. 7. These shields should be bolted to the windshield in such a way that they clamp the edge of the curtain tight against the windshield frame.

This inexpensive device can be made by any good workman and the extra comfort it will add to your car in winter weather will more than repay the outlay. Shutting out the draft also will lessen the danger of catching a cold—a consideration not to be neglected.

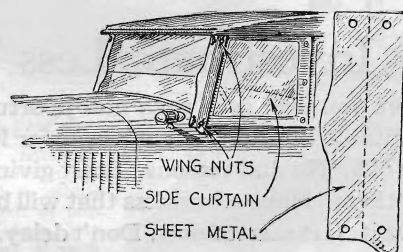


Fig. 7. Shields of sheet aluminum bolted to the windshield help keep the car warm